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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,183	07/30/2003	Yasunori Yamazaki	P5827.C1	9219
20178	7590	02/25/2004	EXAMINER	
EPSON RESEARCH AND DEVELOPMENT INC INTELLECTUAL PROPERTY DEPT 150 RIVER OAKS PARKWAY, SUITE 225 SAN JOSE, CA 95134			MOUTTET, BLAISE L	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/630,183	Applicant(s) YAMAZAKI ET AL.	
	Examiner Blaise L Mouttet	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 5 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/849,012
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because "particle" should read --particles-- in accordance with antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otouma et al. US 4,780,356 in view of Dudek et al. US 5,771,054.

Art Unit: 2853

Otouma et al. discloses a recording method for printing with an ink-jet printer (column 7, lines 34-42) onto a surface of a nonabsorbent printing material (intermediate layer) that does not absorb ink droplets (column 5, lines 36-38), said method comprising:

assuring that said nonabsorbent printing material has a porous receiving layer (column 7, lines 17-25) wherein said porous receiving layer is made to have a plurality of holes each of said holes having a diameter in the range of 10-250 angstroms (column 12, lines 5-7).

Otosuma et al. fails to disclose applying a heating treatment to said inkjet printing material during a printing operation onto said porous receiving layer.

Dudek et al. teaches a heating while printing method for inkjet printing material that employs a heated drum (see abstract).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the heating while printing step in the apparatus of Dudek et al. using the inkjet printing material of Otouma et al.

The motivation for doing so would have been to provide fast drying without smudging of the printing material as taught by Dudek et al.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otouma et al. US 4,780,356 in view of Dudek et al. US 5,771,054, as applied to claim 1, and further in view of Winnek et al. US 5,145,518.

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Otouma et al. in view of Dudek et al. render obvious the limitations of claim 1 as explained above.

Otouma et al. in view of Dudek et al. fail to disclose that the printing operation is performed using a dye-based ink having a plurality of particles.

Winnik et al. discloses a dye-based ink for ink jet printing having a plurality of particles (see abstract).

It would have been obvious for a person of ordinary skill in the art at the time of the invention to use the dye based ink of Winnik et al. in the inkjet printing method of Otouma et al. in view of Dudek et al.

The motivation for doing so would have been to use an ink with good thermal and oxidative stability, with no undesirable intercolor bleeding and which does not clog the inkjet nozzle as explained in column 5, lines 14-20 of Winnik et al.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otouma et al. US 4,780,356 in view of Dudek et al. US 5,771,054, as applied to claim 1, and further in view of Ohta et al. US 4,597,794.

Otouma et al. in view of Dudek et al. render obvious the limitations of claim 1 as explained above.

Otouma et al. in view of Dudek et al. fail to disclose that the printing operation is performed using a pigment-based ink having a plurality of particles sized greater than 300 angstroms and not subject to ion separation.

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Ohta et al. discloses an inkjet ink which is pigment based and includes particles of a size of at least a micron (1 micron = 10000 angstroms) (column 7, lines 23-36) and which does not include ion separation in the preparation (column 7, lines 41-46).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the pigment based ink of Ohta et al. in the method of Otouma et al. in view of Dudek et al.

The motivation for doing so would have been to provide the advantages of clearness, sharpness, water resistance and light resistance to the printed printing material as taught by column 3, lines 12-20 of Ohta et al.

Allowable Subject Matter

5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at telephone number (703) 305-3007 (before February 11, 2004) or (571) 272-2150 (after February 11, 2004). The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

Art Unit: 2853

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (703) 308-4896. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet January 27, 2004

Bm 1/27/2004

A handwritten signature in black ink, appearing to read "Stephen D. Meier", written over a horizontal line.

Stephen D. Meier
Primary Examiner